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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,078	12/11/2003	Kenneth S. Murphy	MP333	7966

7590 11/08/2006

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EXAMINER

ROE, JESSEE RANDALL

ART UNIT PAPER NUMBER

1742

DATE MAILED: 11/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/734,078

Applicant(s)

MURPHY, KENNETH S.

Examiner

Jessee Roe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 11-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claims Status***

Claims 11-16 remain for examination wherein claim 11 is amended and claims 1-10 are canceled

### ***Status of Previous Rejections***

The previous rejection of claims 11-16 under 35 U.S.C 103(a) as being unpatentable over Murphy (US 5,716,720) in view of Duhl et al. (US 4,719,080) and EP 0676489 is withdrawn.

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 18, 2006 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-16 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Nishihata et al. (JP 2000-042755) in view of Warnes et al. (US 5,989,733).

In regards to claim 11, Nishihata et al. ('755) disclose a nickel based alloy [0017]. The table below compares the alloy composition of Nishihata et al. ('755) disclosed invention with that of the claimed invention.

Element	From Instant Claims	Toshinobu ('755)	Overlapping range
Cr	3%-10%	1%-18%	3%-10%
W	3%-10%	0%-12%	3%-10%
Al	5%-7%	1.5%-15%	5%-7%
Ta	3%-12%	0%-11%	3%-11%
Hf	0.03%-0.80%	0%-1%	0.03%-0.80%
Zr	1%-3%	0.1%-2%	1-2%
Ni	remainder	remainder	remainder

The Examiner notes that the disclosed nickel alloy composition overlaps with the composition of the claimed invention. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05.

Nishihata et al. ('755) disclose a nickel base alloy as shown above, but Nishihata et al. do not disclose an outwardly grown aluminide bondcoat and a ceramic thermal barrier coating disposed on the bondcoat wherein the life of the ceramic thermal barrier coating during cyclic oxidation is prolonged.

Warnes et al. ('733) disclose coating a nickel based alloy with a ceramic thermal barrier over an outwardly grown platinum aluminide bondcoat (abstract and Fig. 5). A nickel based alloy with a ceramic thermal barrier over an outwardly grown platinum aluminide bondcoat has higher resistance during high temperature oxidation (Fig. 1 and col. 4, lines 39-68)

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to introduce a ceramic thermal barrier over a platinum aluminide boncoat, as disclosed by Warnes et al. ('733), to the nickel based alloy disclosed by Nishihata et al. ('755), in order to have higher resistance during high temperature oxidation, as disclosed by Warnes et al. ('733) (Fig. 1 and col. 4, lines 39-68).

In regards to claim 12, Nishihata et al. ('755) disclose a nickel alloy that is comprised of Y [0018].

In regards to claim 13 and 15, Nishihata et al. ('755) disclose a nickel alloy that is comprised of a 0%-1% Hf [0018].

In regards to claim 14, Nishihata et al. ('755) do not acknowledge the presence of sulfur. Therefore, Nishihata inherently satisfies the limitations with respect to sulfur.

In regards to claim 16, Warnes et al. ('733) disclose a single phase platinum aluminide coating (abstract).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessee Roe whose telephone number is (571) 272-5938. The examiner can normally be reached on Monday-Friday 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JR

  
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